

# COMP314A Test One 2003

First Name: . . . . .

Last Name: . . . . .

Id Number: . . . . .

*Answer all questions. Write your answers on this test paper, in the space provided. You have 50 minutes to complete this test.*

Questions 1 to 4 **all** relate to the problem description given on the last page of this test. You may want to tear off this last page.

**1. Draw a domain-level class diagram [20 marks]**

see last page of this test for the problem description

**2. Write one use case of your own choice [20 marks]**

see last page of this test for the problem description

**3. Specify one functional requirement [8 marks]**

see last page of this test for the problem description

**4. Specify one reasonable non-functional requirement [10 marks]**

see last page of this test for the problem description

## **5. Explain the Extreme Programming model**

What are its essential ingredients? [10 marks]

How is the client involved? [10 marks]

What are disadvantages of pair programming? [10 marks]

Would you use Extreme Programming for safety-critical software like the space shuttle's life support system?  
(Explain your answer) [10 marks]

**This is the problem description for Questions 1 to 4.**

**You may tear off this page if this is helpful**

Next year's supercomputer conference will be happening on Waiheke Island. The conference organizers have contracted you to build a fully online system to keep track of the paper submission and the review process.

Authors will submit papers in electronic form (pdf only). The web-based submit form will also collect their email address. Authors will upload their paper, give contact details, specify a contact author and select from a list of possible keywords at least 3 keywords appropriate for their paper.

Each paper will be reviewed by 3 reviewers. Reviewers also supply a contact email, and a list of keywords specifying the areas they are competent in.

The system will assign papers to competent reviewers by trying to assign each reviewer about the same number of papers, while make sure that no reviewer is assigned a paper where none of the paper's keywords matches the reviewer's keywords.

If they have not yet submitted their reviews, reviewers will be sent an automatic email remainder two days before the review deadline.

Reviewers can either accept or reject a paper. Only papers accepted by at least 2 reviewers will be accepted.

Every author (or the designated contact author in case of multiple authors for a paper) will get a notification email telling them whether their paper has been accepted or rejected.